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DOGM
MINERALS PROGRAM
FILE COPY

August 3, 1989

TO: Minerals File

FROM: Holland Shepherd, Reclamation Specialist/Permit Lead *HDS*

RE: Meeting Energy Fuels, MiVida Mine, S/037/028, San Juan County, Utah

On July 26, 1989, officials representing the state met with representatives of Energy Fuels Nuclear to discuss the proposal of turning the MiVida Mine into a solution mine. Those representing the state included: myself, Lowell Braxton, DOGM; Larry Miez, Bureau of Water Pollution Control (BWPC); Ralph Bahn, BWPC; and Don Mitchell, Bureau of Radiation Control (BRC). Individuals representing Energy Fuels included: Muril Vincelette and Bill Almas.

In short, Energy Fuels proposes an in stope/in situ leaching technique. Water would be the leaching agent. The leaching process would consist of a closed circuit at the surface. The only place for solution exit would be in the mine.

Uranium would be upgraded on site, hence the process would require a Nuclear Regulatory Commission (NRC) Source Material License. The onsite process would create a resin or solution which would be hauled offsite. The NRC will require a bond for the process facilities.

The most likely source of contamination would be uranium salts to ground water. The BWPC informed the operator that it would be necessary to prove that the local aquifers would not be adversely impacted by the solution mining; and that any associated aquifers could not be categorized as an Underground Source of Drinking Water. The operator will look for existing information on the hydrogeology of the site. If none exists, it may be necessary for the company to generate the hard/physical data.

The BWPC indicated that the operator could permit under a Class V well. This permit would fall under the Underground Injection Control (UIC), section of the state's rules. This would be in lieu of using the ground water rules, which involve a more rigorous permitting process. According to the BWPC, because the site is existing, an exemption to the upcoming, yet unapproved, ground water rules, could be granted. The UIC program requires a bond.

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Depending upon the potential impact of the operation to ground water resources, the BWPC will require: 1) a permit, for a sensitive area; or 2) they will Permit by Rule, which does not require a full blown permit.

The company was encouraged by BWPC to establish a pilot plant before going full scale. The permitting process would be the same, for either.

After discussing water quality concerns, Energy Fuels and DOGM personnel discussed reclamation concerns. It was agreed that it would be in the interest of all parties concerned to preserve some of the historic values/structures at the MiVida site. Most of these structures fall under a pre-law exemption, like the old cook house and rail facilities. Other structures, like the portals, would require reclamation to the degree where they would no longer pose a public hazard.

The operator is concerned that the Division will require the reclamation of a large waste dump in the stream channel, next to the McCormick tunnel; also the reclamation of a 30 foot steel ore bin in front of the McCormick tunnel. A joint visit will be made to the area again this late summer or early fall to evaluate these items and to obtain an exact acreage estimate of the site.

The site is still under the control of Minerals West, Incorporated. It has not yet been turned over, officially, to Energy Fuels via our permitting process.

jb
cc: Thomas Nielson, Minerals West, Inc.
Lowell Braxton
Minerals Team
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